Amendments to the Claims

1. *(Currently Amended)* A pumping system for pumping an oral composition used in the treatment of the oral cavity, comprising:

a pumping system for moving an oral composition useful in the treatment of the oral cavity having a selected viscosity from a reservoir of an oral treatment system to an outlet of the system, the pumping system including a pump and a fluid pathway for the oral composition to reach the outlet, wherein the pump is so characterized and the pathway has an internal cross-sectional area ~~(A)~~ within the range of 0.25 mm^2-16 mm^2 and a length ~~(y)~~ within the range of 100 mm-200 mm and is otherwise so characterized by such a cross-sectional shape and cross-sectional uniformity along its length that an oral composition with a minimum viscosity of 10 Pa.s at a shear rate of $1s^{-1}$ and a maximum viscosity not greater than η(in Pa.s) at a shear rate γ(in s^{-1}) defined as follows:

$$\eta = \frac{250A^2}{4y} \text{ and } \gamma = \frac{2500}{A^{3/2}}$$

can be moved to the outlet by the pump at a rate of at least 0.1 ml per second.

2. *(Original)* The pumping system of claim 1, wherein said rate is preferably approximately 0.2 ml per second.

3. *(Original)* The pumping system of claim 1, wherein the fluid pathways are flexible tubing and the internal cross-sectional area of the tubing is within the range of 0.5 mm^2 to 10 mm^2 and the length of the tubing is from 120 mm to 180 mm.

4. *(Original)* The pumping system of claim 1, wherein the pump is a positive displacement pump.

5. *(Original)* The pumping system of claim 1, wherein the oral treatment system comprises a hand-held toothbrush which includes a housing grippable by a user's hand, wherein the housing contains the reservoir.

6. *(Original)* The pumping system of claim 5, wherein the toothbrush is an electric toothbrush.

7. *(Original)* The pumping system of claim 4, wherein the positive displacement pump is a diaphragm pump.

8. *(Original)* The pumping system of claim 1, wherein the reservoir has an internal volume of between 5 ml and 25 ml.

9. *(Original)* The pumping system of claim 3, wherein the tubing has a length to internal cross-section area ratio of at least 1:1 ml^{-1}.

10. *(Currently Amended)* A system for treatment of the oral cavity, comprising:

an oral composition suitable for treatment of the oral cavity;

a reservoir for the oral composition; and

a pumping system for moving the oral composition from the reservoir to an outlet of the treatment system, the pumping system including a pump member and a fluid pathway tube for the oral composition to reach the outlet, wherein the pump is so characterized and the fluid pathway tube has a cross-sectional area ~~(A)~~ within the range of 0.25 mm^2 to 16 mm^2 and a length ~~(y)~~ within the range of 100 mm-200 mm and otherwise so characterized by a selected cross-sectional shape and uniformity of cross-sectional configuration along its length relative to the oral composition with a minimum viscosity of 10 Pa.s and a shear rate of $1s^{-1}$ and a viscosity not greater than η(in Pa.s) at a shear rate γ(in s^{-1}), defined in the following equations:

$$\eta = \frac{250A^2}{4y} \text{ and } \gamma = \frac{2500}{A^{3/2}}$$

that said composition can be moved to the outlet by the pump at a flow rate of at least 0.1 ml per second.

11. *(Original)* The system of claim 10, wherein the fluid pathway

tube has an internal cross-sectional area within the range of 0.5 mm^2 to 10 mm^2 and a length within the range of 120 mm to 180 mm.

12. *(Original)* The system of claim 10, wherein the reservoir has an internal volume of between 5 ml and 25 ml.

13. *(Original)* The system of claim 10, wherein the flow rate is preferably 0.2 ml per second.

14. *(Original)* The system of claim 10, wherein the oral treatment system includes a hand-held toothbrush which can be gripped in the user's hand, wherein the housing contains the reservoir and the outlet is within a bristle portion of the toothbrush.

15. *(Original)* A method of treatment of the oral cavity, comprising the steps of:

moving an oral composition suitable for treatment of the oral cavity with a pumping system from a reservoir to an outlet of an oral treatment system, the oral treatment system comprising a toothbrush having a brushhead with an outlet suitable for insertion into the oral cavity, the pumping system including a pump and a fluid pathway tube for an oral treatment composition, wherein the pump is so characterized and the fluid pathway tube has an internal cross-section diameter (A) within the range of 0.25 mm^2 to 16 mm^2 and a length (y) within the range of 100 mm to 200 mm and is otherwise so characterized by a cross-sectional shape and uniformity of cross-sectional configuration that the oral composition is moved to the outlet at a flow rate of at least 0.1 ml per second, wherein the oral composition has a minimum viscosity of 10 Pa.s and a shear rate of 1 s^{-1} and a maximum viscosity not greater than η(in Pa.s) at a shear rate γ (in s^{-1}), defined by the following equation

$$\eta = \frac{250A^2}{4y} \text{ and } \gamma = \frac{2500}{A^{3/2}}$$

16. *(Original)* The treatment method of claim 15, wherein said flow rate is approximately 0.2 ml per second.

17. *(Original)* The treatment method of claim 15, wherein the reservoir has an internal volume of between 5 ml and 25 ml.

18. *(Original)* The treatment method of claim 15, wherein the fluid pathway has a cross-sectional area within the range of 5 mm^2 to 10 mm^2 and a length within the range of 120 mm to 180 mm.

19. *(Currently Amended)* A reservoir and fluid connection system for delivery to an oral treatment system of an oral composition useful in the treatment of the oral cavity to the treatment system:

a reservoir for containing a supply of an oral composition which is useful in the treatment of the oral cavity; and

means for connecting the reservoir to the oral treatment system, the connecting means including a fluid pathway which has an internal cross-sectional area ~~(A)~~ within the range of 0.25 mm^2-16 mm^2 and a length ~~(y)~~ within the range of 100 mm–200 mm and is otherwise so characterized by such a cross-sectional shape and such cross-section uniformity along its length that an oral composition with a minimum of viscosity of 10 Pa.s at a shear rate of $1s^{-5}$ and a maximum viscosity not greater than η (in Pa.s)at a shear rate γ (in s^{-1}) defined as follows:

$$\eta = \frac{250A^2}{4y} \text{ and } \gamma = \frac{2500}{A^{3/2}}$$

can be moved to the outlet by a pump at a rate of at least 0.1 ml per second.

20. *(Original)* The system of claim 19, wherein the fluid pathway comprises flexible tubing and the internal cross-sectional area of the tubing is within the range of 0.5 mm^2 to 10 mm^2 and the length of the tubing is within the range of 120 mm to 180 mm.

21. *(Original)* The system of claim 19, wherein the reservoir has an internal volume of between 5 ml and 25 ml.

22. *(Original)* The system of claim 20, wherein the tubing has a length to internal cross-sectional area ratio of at least 1:1 ml^{-1}.

23. *(Currently Amended)* A kit for care of the oral cavity, comprising:

an oral composition which is useful in the treatment of the oral cavity; and

an oral treatment system which includes a reservoir for containing the oral composition, a fluid pathway and a pump for moving the oral composition from the reservoir through the fluid pathway to an outlet of the oral treatment system, wherein the pump is configured and arranged and otherwise so characterized and wherein the fluid pathway has a cross-sectional area ~~(A)~~ within the range of 0.25 mm^2 to 16 mm^2 and a length ~~(y)~~ within the range of 100 mm – 200mm and is otherwise so characterized by a selected cross-sectional shape and uniformity of cross-sectional configuration along its length relative to the oral composition which is moved there along and which has a minimum viscosity of 10 Pa.s, and a shear rate of $1s^{-1}$ and a viscosity not greater than η (in Pa.s) at a shear rate γ (in s^{-1}) defined as follows:

$$\eta = \frac{250A^2}{4y} \text{ and } \gamma = \frac{2500}{A^{3/2}}$$

that said composition is moved to the outlet of the oral treatment system by the pump at a flow rate of at least 0.1 ml per second.

24. *(Original)* The kit of claim 23, wherein the fluid pathway is a tube which has an internal cross-sectional area within the range of 0.5 mm^2 to 10 mm^2 and a length within the range of 120 mm to 180 mm.

25. *(Original)* The kit of claim 23, wherein the reservoir has an internal volume of between 5 ml and 25 ml.

26. *(Original)* The kit of claim 23, wherein the oral treatment system includes a hand held toothbrush having a housing which contains the reservoir and wherein the outlet of the oral treatment system is located within a bristle portion of the toothbrush.

27. *(Original)* The kit of claim 24, wherein the tube has a length to internal cross-sectional area ratio of at least 1:1 ml^{-1}.

28. *(Original)* A reservoir for holding an oral composition useful in the treatment of the oral cavity, for use with an oral treatment system, comprising:

a reservoir for containing a supply of an oral composition which is useful in the treatment of the oral cavity; and

means for removably connecting the reservoir to a pump and follow-on fluid pathway which in turn is connected to an oral treatment system, wherein the reservoir and the connecting means are adapted to permit movement of an oral composition by the pump from the reservoir into the fluid pathway at a rate of at least 0.1 ml per second, the oral composition having a minimum viscosity of 10 Pa.s at a shear rate of $1s^{-1}$ and a maximum viscosity of not greater than (in Pa.s) at a shear rate γ (in s^{-1}), where and γ are defined as follows:

$$\eta = \frac{250A^2}{4y} \text{ and } \gamma = \frac{2500}{A^{3/2}}$$

Where A is the internal cross-sectional diameter of the fluid pathway and y is the length of the fluid pathway .

29. *(Original)* The reservoir of claim 28, wherein the reservoir has an internal volume of between 5 ml and 25 ml.

30. *(Original)* The reservoir of claim 28, wherein the reservoir is adapted to be positioned externally of a housing for the oral treatment system.